

BULLETIN

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EARLY CABBAGE

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Since this Station's first report on early cabbages* much change has taken place. Not only has the total number of seedsmen greatly increased, and the amount of business per seedsman, but the number of varieties and strains of all kinds of vegetables, as well as early cabbages, have multiplied rapidly.

Bulletin 7 of 1889 includes a report of the trial of Early Jersey Wakefield seed from two sources only. In the present report an account is given of Wakefield strains from twenty-seven sources, each seedman offering one or more strains. In making up lists for trial care was taken to exclude all strains or varieties that did not seem to offer some grounds for differences or superiority. The total number of strains and varieties offered by the American trade is much greater.

The former report was issued at the time when the Early Jersey Wakefield was superseding the older standard early varieties, mainly the "Early York" and "Etamps." The trials of '88 and '89 so clearly demonstrated the superiority of the Wakefield over the other early types, and the experience of succeeding years has so completely verified these conclusions, that it has not been thought necessary to include the older types in this test, except as they have been found masquerading under other names.

The strains and many selections of the early cabbages under consideration are mostly of recent origin. Popular interest in plant breeding, developed mainly during the past ten years, is probably largely responsible for this. To meet the sudden demand for new and improved vegetables seedsmen have apparently been too hasty

*Ohio Agricultural Experiment Station Bulletin No. 7, 1889.

in offering stocks which are claimed to be improvements upon old sorts. To breed up a superior strain of cabbage is not the work of a season. More than ordinary difficulties surround cabbage breeding. However, much work has been started and is in progress. Under the same name can be found all degrees of variation in type; hence the need of another strain test of early cabbages.

The reason for making this strain test of early cabbages was for the purpose of studying characteristics, in order to serve as a basis for plant breeding operations, as well as to call attention to the importance of a knowledge of the various strains in the varieties of cabbages. Every cabbage grower should be informed on this question.

The calling attention to the good or bad strains offered by different seedsmen is an incidental matter, and is not of great value of itself. Seedsmen may, and often do, change their stocks, hence one cannot be absolutely sure that he will be able to obtain the same seed from any source a second time, although, as a matter of course, good strains are more apt to be retained year after year by the dealer than poor ones.

That there are strains within the varieties of early cabbages is a fact of vital importance to the gardener as well as to the plant breeder.

The methods commonly followed by seedsmen to obtain these strains, or to breed up a variety to certain standards are not usually the best. Too often the selections have been made from the best individual specimens and then mixing these stocks, thus perpetuating a mixture of strains, which, at best, is only a slight improvement, in most cases, upon the original mixture. The keeping separate of seeds from individual plants and then controlling crossing; in other words, starting from and maintaining the progeny of proven superior plants, rather than the mass, has not been commonly practiced. Our varieties of early cabbages are nearly all a mixture of strains, due as much to faulty methods of selection as to uncontrolled crossing.

Seedsmen sometimes make the claim that a change of soil or climate is responsible for the cropping out, or sudden appearance of new strains, hence variation or sporting may be expected to take place under some conditions rather than others. Without denying the influence of environment the fact may be stated that careful breeding will eliminate much of the variation attributed to unfavorable surroundings.

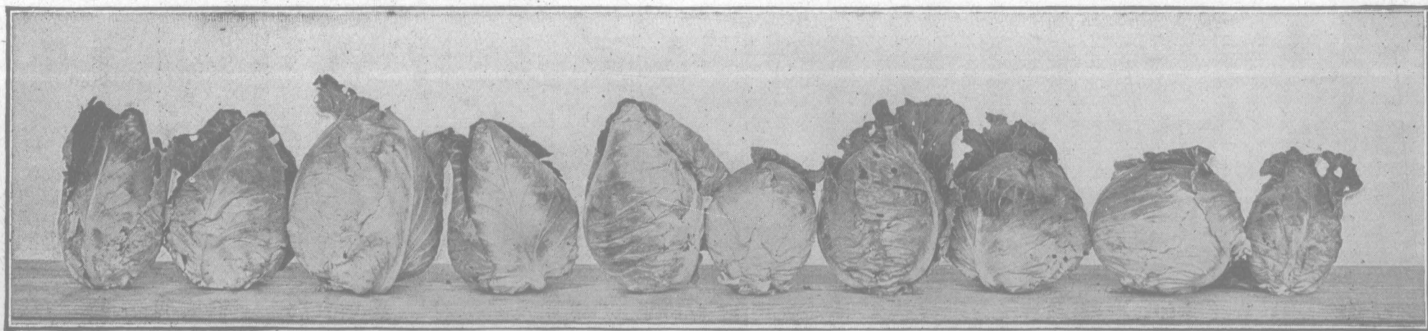


Fig. 1. Variation of shape of heads in a strain of Early Jersey Wakefield Cabbage.

When seedsmen realize this, they will not regard simple "roguing" as sufficient to bring a variety up to a high standard nor will they offer as an explanation for a variety "going all to pieces" that the soil or climate was uncongenial. When cabbage growers come to understand that an impure variety is not a mere mechanical mixture of different varieties, but the product of bad breeding, they will then demand and will be willing to pay for the best seed that careful breeding can produce. The difference in cost of ordinary seed at ten cents per ounce and the best at even a dollar an ounce, is small, indeed, when the possible difference in yield that may be due to the selection alone, is considered.

Cabbage seed is grown commercially only in a few favored localities. At present American seedsmen obtain their stocks mainly from three sources. 1st, Europe, chiefly Denmark and France; 2nd, Long Island, N. Y.; 3rd, from the Puget Sound region, Washington. This wide range of seed production may tend toward a variation of type due, perhaps as much to different methods of cultivation and breeding as to climatic conditions. American grown seed, if produced with equal care, has been proved in every respect equal to European seed.

There is considerable difference to be noted in the appearance and weight of seed from different sources. The plants also show a marked difference in vigor of growth in the seed box. Plump, bright seed may tend to give the plant a better start in life. The age of the seed may have considerable to do with its appearance, as well as the germination and the vitality of the young plant.

It is not easy for the gardener to grow cabbage seed as it is the seed of many other vegetables. In the majority of cases it is unadvisable or impracticable. However, the practicability of breeding up a strain of early cabbage is becoming more evident every season and in the future the Experiment Station may be in position to recommend methods of such work to market gardeners.

However, it is easy for the gardener to secure the best of seed on the market with little trouble or expense. If he will take pains to make personal trials of several samples of seed from sources most promising he will be able to find a strain that comes nearly, if not quite, up to his requirements. It is necessary, however, to secure more than the quantity required for the trial planting and then hold the remainder over until the next season, planting from the stock that by his test is the best. Thus a satisfactory strain can be procured at a trifling cost.

The results of trials at the Station should furnish suggestions rather than permit of final conclusions.

That early cabbage can be, and is being selected to meet various ideals and requirements is plainly illustrated by some of the strains tested and reported upon in this bulletin. That claims of selections are made, which do not appear to be sustained in our trials, is also true. That seedsmen have done so well in improving their stocks is encouraging, and it is hoped that cabbage growers will further this good work by willingly paying the additional price that must be asked for well bred seed. Cooperation is needed for the advancement of mutual interests between growers and seedsmen and the matter of cost of seed alone should be given little weight.

While primarily a strain test of the Early Jersey Wakefield cabbage, other types of early cabbage have been included in our trials and will be found useful for comparison and desirable where other types of heads are in demand or salable.

The early Jersey Wakefield cabbage was introduced into this country by Francis Brill, then residing in New Jersey, about 1850 and under the same name it now bears. It was for a time grown only by himself and neighboring gardeners. These men also grew for seed other varieties of cabbage with the result that the original Wakefield became mixed. As no more stock could be obtained from the original source in England, our present strains are of hybrid stock and may be said to be of American origin. It was also from this hybrid seed that John Brill, a brother of Francis, selected a large type of Wakefield which became popular in the south under the name of Charleston Wakefield. Seed from the original stock is still being grown by Francis Brill, son of John Brill, of Hempstead, L. I., N. Y.. Peter Henderson was the first to introduce this cabbage to the general public in the fifties.*

GENERAL NOTES ON TEST

Seed for the 1911 trials was sown April 13th; the plants were transplanted into flats April 22nd, and into the field May 2nd. The weather at transplanting time and for the month following, was very dry and the Skinner System of irrigation was used with very satisfactory results. The first cutting was made July 13 and succeeding cuttings about ten days apart.

Seed for the 1912 trials was sown April 17th; the plants were transplanted into flats April 24th and into the field May 8th. The first cutting was made July 19, and further cuttings about eight days apart. The entire season was very favorable and irrigation was not necessary.

*Brill—Farm, Garden and Seed Growing, 1902.

The ground upon which these trials were conducted was only of moderate fertility and not naturally a market garden soil. A heavy covering of manure was given and immediately plowed under followed by a commercial fertilizer, drilled in.

In making notes of the Jersey Wakefield types an ideal strain was kept in view. The heads of such a strain should be of medium size with an angular shape, sharply inclined to a point. Heads decidedly blunted or round were classed as "off type" as were also "sports" and mixtures. The ideal color should be a uniform light green. The outer leaves should be few and the head when mature solid and crisp.

The average gardener does not consider the blunted or round head very objectionable. However, such heads detract from the uniform appearance of the strain and as it is possible to breed fairly true to the ideal type, this point was given considerable weight. The points which receive most attention from the practical grower are uniformity in size, shape and date of maturity. It is highly desirable that the crop should be ready to cut within as short a space of time as possible. If the entire crop can be removed early, time is secured for the sowing of a second crop or a cover crop, besides securing the advantage of early market.

NOTES ON WAKEFIELD TYPES

Extra-early Jersey Wakefield (Beckert). A fair strain. Matures the crop in a satisfactory manner but hardly justifies being called "Extra Early." Plants of vigorous growth and good color. The heads are large, solid and above the average in weight.

Early Jersey Wakefield (Bolgiano). Claimed to be of selected stock but shows little evidence of such work. A large percent of heads were off type, being chiefly round heads.

Extra Early Jersey Wakefield (Bolgiano). By no means meets the requirements of an extra early strain. A few heads matured at first cutting but the bulk of the crop was late.

Extra Early Wakefield (Brill). Justifies catalog description as being the "smallest and earliest of the Wakefields." It belongs to the small group of Early Jersey Wakefield strains of extra earlies that show distinct results of up-to-date breeding work. These strains are entitled to a separate name rather than to be designated under the hackneyed "Extra Early." The uniformity of the heads in size and the short time required to mature the entire crop makes the strain a safe one for market gardeners. Most markets prefer a small sized, solid head and the gardener who can cut the bulk of his field when the prices are high, reaps the most satisfactory financial returns.

Early Jersey Wakefield (Brill). Claimed to be of the original stock introduced seventy years ago. It is typical of the "old fashioned Wakefield." A comparison of this strain with the preceding illustrates very clearly what strain breeding can accomplish. The tendency in breeding the Jersey Wakefield

cabbage has been to breed a smaller and earlier head. In this strain the heads average a pound heavier than the "Extra Early" strain and the heaviest cutting was made at the same date as the last cutting of the "Extra Early" strain. Side by side in the trial plots the two strains were perfectly distinct.

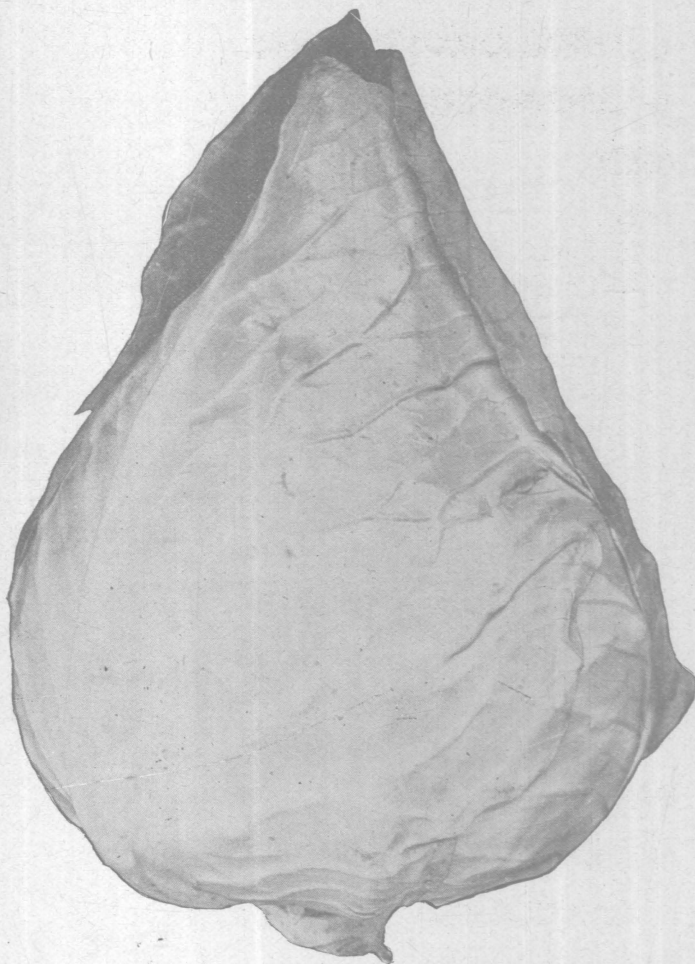


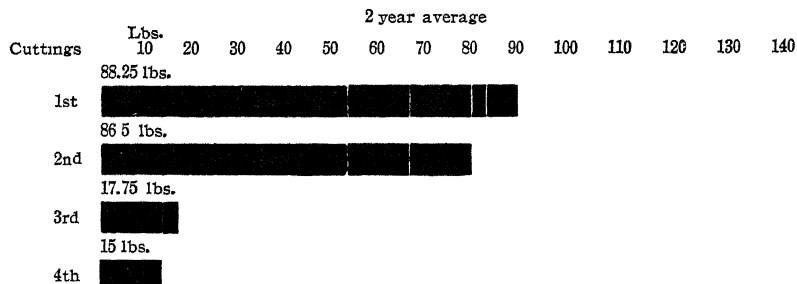
Fig. 2. Early Jersey Wakefield. (Vaughan).

Selected True Early Jersey Wakefield (Buckbee). Does not fulfill catalog claims. The heads average large and plants vary much in appearance and size. Most of them, however, are of the rank growing, spreading type, common to unselected strains. This cannot be classed as the "earliest strain of this standard variety."

Special Extra Early Jersey Wakefield (Burpee). Of the true extra early type and one of the best strains tested. Noticeable for maturing the bulk of the crop at the first and second cuttings. This is plainly illustrated in accompanying chart (See Chart No. 1.) A very small percentage of heads off type. It shows plainly what selection can do. Such strains of cabbage seed are profitable to market gardeners at ten times the price asked.

CHART I.

SPECIAL EARLY JERSEY WAKEFIELD—(Burpee)



Early Jersey Wakefield (Burpee). Distinct from the preceding strain. A rank grower, maturing the bulk of its crop later than the former strain. A very good average strain of the Jersey Wakefield.

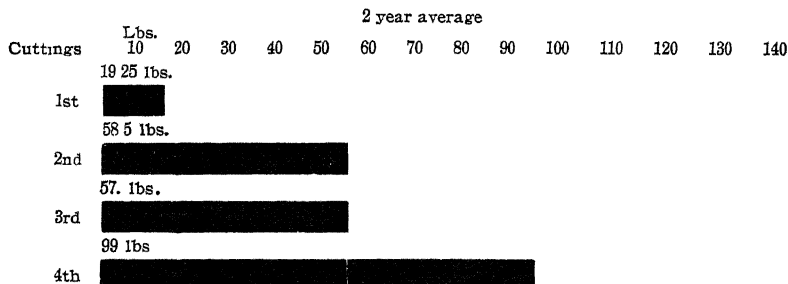
Early Jersey Wakefield (Darling & Beahan). A good average strain. Distinguishable in 1912 trials for having a 6 percent mixture of a large growing kale. Evidently a mechanical mixture, as these plants could hardly have resulted from a cross, or sport.

Early Jersey Wakefield (Dreer). Fairly uniform in appearance and matures a goodly percentage of heads at second and third cuttings. Can be rated as an average strain.

Small Extra Early Jersey Wakefield (Dreer). Does not come up to catalog claims. Not of the extra early type. The heads average larger than most Jersey Wakefield types. Matures the bulk of its crop late, is shown in Chart No. 2. Shows a considerable percentage of large, leafy, worthless heads.

CHART II.

SMALL EXTRA EARLY JERSEY WAKEFIELD (Dreer)



Selected Early Jersey Wakefield (Farquhar). Does not show the effect of selection work to any extent. A large percent of small, leafy plants, maturing few heads. Fairly early, with small but solid heads.

Early Jersey Wakefield (Ferry). A fair strain of the extra early type. Small, solid heads, very uniform in appearance and attractive. Can be depended upon.

Early Jersey Wakefield (Field). This is an average type.

Original Early Jersey Wakefield (Henderson). A very good strain, uniform and true to type. The heads were of an average weight and of fair appearance. The crop matured in good season.

Select Early Jersey Wakefield (Isbell). One of the average strains.

Extra Selected Early Jersey Wakefield (Johnson). Another of the "extra select" strains that has failed in our tests to meet a reasonable standard of earliness. Considerable percentage of the heads off type as to shape and many small, non-heading plants. Matures bulk of crop late.

Select Very Early Jersey Wakefield (Landreth). A strain like this gives a reason to hope that seedsmen can really do plant breeding on a commercial scale. Over half of the crop matured by the time of the second cutting. A very small percentage of off type heads. The heads average small but in most markets this is very desirable. A splendid strain for market gardeners.

Early Jersey Wakefield (Leonard). A strain with no apparent distinctive points. Compares well with most strains in the market.

Early Jersey Wakefield (Lilly). Claimed to be Puget Sound grown seed. Compares favorably with best strains. The shape and appearance of heads are very good. There is no doubt, judging from repeated trials, that American grown seed is as good as European.

Early Jersey Wakefield (Livingston). A fair strain but matures bulk of crop rather late. A small percentage of heads off type. General appearance good.

Early Jersey Wakefield (May). A very good strain. Heads averaged well in weight and matured in good season.

Early Jersey Wakefield (Rawson). Claimed to be of extra selected stock and shows results of careful selection. The bulk of the heads matured early and there was a very small percentage of heads off type. It can be rated as a good strain.

Extra Early Wakefield (Simon). The difference between this strain and the one following, if any, would lead one to believe that the labels had been exchanged.

Early Jersey Wakefield (Simon). Results of one season's test would lead one to believe that this strain is the "extra early" and the other of average season, if weights of cuttings can be depended upon for such deductions.

True Early Wakefield (Tait). The habit of growth, size and shape of the head marks this strain as of the original type of Jersey Wakefield. It has the typical irregularity of plant appearance and season of maturity of the common Wakefield.

Extra Early Wakefield (Tait). One season's trials of this strain show difference in season of maturity and other points to really justify separation of strains.

Long Island Selected Wakefield (Tait). Shows the much desired tendency of maturing the bulk of the crop at first cuttings.

Selected Early Jersey Wakefield (Stokes). This strain seems to vary greatly. A large percent of heads were off type and plants in color showed a mixed appearance.

Early Jersey Wakefield (Thorburn). A true extra early strain which shows every evidence of selection for an ideal type. Comes up fully to the catalog claims. Remarkable for maturing (season 1911) every head at the third cutting and with an extremely small percent of off type heads. The heads were small and very solid. This strain can hardly fail to please those who plant for profit.

Selected Early Jersey Wakefield (Vaughan). American grown seed. A splendid strain in every way. Heads of fine shape and solid. Matures bulk of crop early, which habit means much to market gardeners.

Selected Early Jersey Wakefield (Vick). This strain does not seem to be well fixed. Many large, leafy plants. Considering yield alone the strain is fairly satisfactory.

Big Winner Wakefield (Bolgiano). Evidently a selection from the large type of Jersey Wakefield. Not well fixed as to type, a considerable percentage of round heads or sports. Averages a little larger and similar in appearance to the Charleston Wakefield. Cannot be classed as an early, but rather as a second early.

Large Charleston Wakefield (Brill). A typical example of the larger and later maturing strains originating from the Jersey Wakefield.

Charleston Wakefield (Landreth). While a considerable percentage of the heads were off type, the larger part of these were the round type and not objectionable. The heads averaged large, solid and matured in a satisfactory manner. A good strain for second early.

Prize Wakefield (Maule). Seed claimed to have been grown on Long Island. Rather late in maturing but of a very uniform strain. The heads averaged heavy and were solid. Apparently a good second early of the Wakefield type.

EARLY CABBAGE TEST 1911-12

WAKEFIELD TYPES

WEIGHTS

Test year	Name	Cuttings				Total lbs.	No. heads	Av. wt. lbs.
		1st	2nd	3rd	4th			
1912	Ex. Ey. Jersey Wakefield (Beckert).....	21.	40.	84.	47.	192.	48	4.0
1911	Big Winner Wakefield (Bolgiano).....	18.	53.	47.	156.	274.	54	5.5
1912	Big Winner Wakefield (Bolgiano).....	17.5	40.	81.	79.	217.5	55	3.9
1911	Ey. Jersey Wakefield (Bolgiano).....	36.	36.5	60.	30.	162.5	45	3.6
1912	Ey. Jersey Wakefield (Bolgiano).....	48.5	64	82.	9.	203.5	56	3.6
1911	Ex. Ey. Jersey Wakefield (Bolgiano).....	27.	85.	53.5	79.	244.5	51	4.8
1912	Ex. Ey. Jersey Wakefield (Bolgiano).....	59.	63.	86.	17.	225.	62	3.6
1912	Ey. Jersey Wakefield (Brill).....	31.	35.5	104.	34.	204.5	55	3.7
1912	Ex. Ey. Jersey Wakefield (Brill).....	32.5	53.	58.	143.5	247	56	2.6
1912	Large Charleston Wakefield (Brill).....	28	61.	62.	75.	226.	53	4.3
1912	Sel. True Ey. Jersey Wakefield (Buckbee).....	57.5	38.	76.	13.	184.5	54	3.4
1912	Ey. Jersey Wakefield (Burpee).....	49.	46.5	52.	34.	181.5	61	3.0
1911	Special Ey. Jersey Wakefield (Burpee).....	13.5	143.	21.5	30.	208	54	3.8
1912	Special Ey. Jersey Wakefield (Burpee).....	163.	30.	14.	207.	207	55	3.8
1912	Ey. Jersey Wakefield (Darling & Beahan).....	24.	63.	37	27.	151	56	2.7
1911	Ey. Jersey Wakefield (Dreer).....	17.	109.	23.5	42.	191.5	54	3.5
1912	Ey. Jersey Wakefield (Dreer).....	29.5	38	75.	37.	179.5	59	3.0
1911	Small Ex. Ey. Jersey Wakefield (Dreer).....	4.5	99.	15.	111.	215.5	52	4.2
1912	Small Ex. Ey. Jersey Wakefield (Dreer).....	34.	18.	99.	87.	238	57	4.2
1911	Ey. Jersey Wakefield (Farquhar).....	22.	89.	19.5	46.	176.5	49	3.6
1912	Ey. Jersey Wakefield (Farquhar).....	66.	52.	49.	22.	189.	59	3.2
1911	Ey. Jersey Wakefield (Ferry).....	18.	58.	52.	48.	166.	52	3.0
1912	Ey. Jersey Wakefield (Ferry).....	48.5	53	55.	27.	183.5	62	3.0
1912	Ey. Jersey Wakefield (Field).....	35.5	49.	82.	35.	201.5	57	3.5
1911	Original Ey. Jersey Wakefield (Henderson).....	12.	66.	34.	74	186	51	3.6
1912	Original Ey. Jersey Wakefield (Henderson).....	46.	89.	27.	39.	201.	56	3.6
1912	Select Ey. Jersey Wakefield (Isbell).....	41.5	37.	56.	78.	212.5	62	3.4
1911	Ey. Jersey Wakefield (Johnson).....	8.	48.	37.	103.	196.	51	3.8
1911	Sel. very Ey. Jersey Wakefield (Landreth).....	7.5	75.	30.5	21.	134.	50	2.7
1912	Sel. very Ey. Jersey Wakefield (Landreth).....	78.	36.	34	22.	170.	55	3.1
1911	Large Charleston Wakefield (Landreth).....	12.5	68.	67.	124.	271.5	61	4.4
1912	Large Charleston Wakefield (Landreth).....	25.	73.5	62.	48.	208.5	66	3.2
1912	Ey. Jersey Wakefield (Leonard).....	13.	50.	67.	74.	204.	54	3.8
1911	Ey. Jersey Wakefield (Lilly).....	...	60.	13.	67.	140	45	3.1
1912	Ey. Jersey Wakefield (Lilly).....	27.5	53.	65.	37.	182.5	55	3.3
1911	Ey. Jersey Wakefield (Livingston).....	3.5	78.	8	99.	189.5	48	3.9
1911	Prize Wakefield (Maule).....	15.	74.	43.	110.	242.	53	3.9
1912	Prize Wakefield (Maule).....	19.	45	47.	78.	189	53	3.6
1911	Ey. Jersey Wakefield (May).....	13.	60.	15.	56	144	54	2.7
1912	Ey. Jersey Wakefield (May).....	30.	85.	60.	49.	224.	56	4.0
1911	Ey. Jersey Wakefield (Rawson).....	16.	79.	33.	34.	162.	44	3.7
1912	Extra Ey. Wakefield (Simon).....	51.	60.	24	46	181.	56	3.2
1912	Ey. Jersey Wakefield (Simon).....	29.	60.	58.	4.	151	55	2.7
1911	Select Ey. Jersey Wakefield (Stokes).....	6.5	82.	22.5	53.	164.	45	3.6
1912	Select Ey. Jersey Wakefield (Stokes).....	22.5	54.	60.	44.	180.5	47	3.8
1912	Ex. Ey. Jersey Wakefield (Tait).....	58.	36.	35.	20	149.	44	3.4
1912	L. I. Sel. Ey. Jersey Wakefield (Tait).....	92	43	39.	...	174.	54	3.2
1912	True Ey. Jersey Wakefield (Tait).....	64.	36	58.	34	192.	57	3.4
1912	Large Charleston Wakefield (Tait).....	14	40	67.	71.	192.	58	3.3
1911	Early Jersey Wakefield (Thorburn).....	23.	130.	38.	...	191.	51	3.7
1912	American Sel. Ey. Jer. Wakefield (Vaughan).....	63	47.	26.	...	136.	46	2.8
1911	Early Jersey Wakefield (Vaughan).....	8.5	141.	22.	9.	180.5	58	3.1
1911	Select Ey. Jersey Wakefield (Vicks).....	54.	67.	38.	99.	258.	53	4.9
1912	Select Ey. Jersey Wakefield (Vicks).....	50.	15.	59.	37.	161.	51	3.2

NOTES ON MISCELLANEOUS TYPES

Early of Earlies (Boddington). Of the old "Etamps" type. A fast growing plant of a pale green color. The head is very conical in shape but is much inclined to be soft and to prove worthless. Not resistant to common diseases.

Race Horse (Buckbee). Another of the "Etamps" type. To sell this class of cabbage seedsmen seem to have to resort to renaming and introducing as a novelty. This type is practically worthless to most market gardeners and has only a limited place in the home garden. The strain developed 10 percent worthless sports and was badly attacked by disease.

Allhead Early (Burpee). A splendid cabbage of the flat-headed type. Very uniform in shape but inclined to vary in weight, giving, however, a heavy average for a variety of so early a maturity. Of fine appearance and one of the best where a flat head is desired.

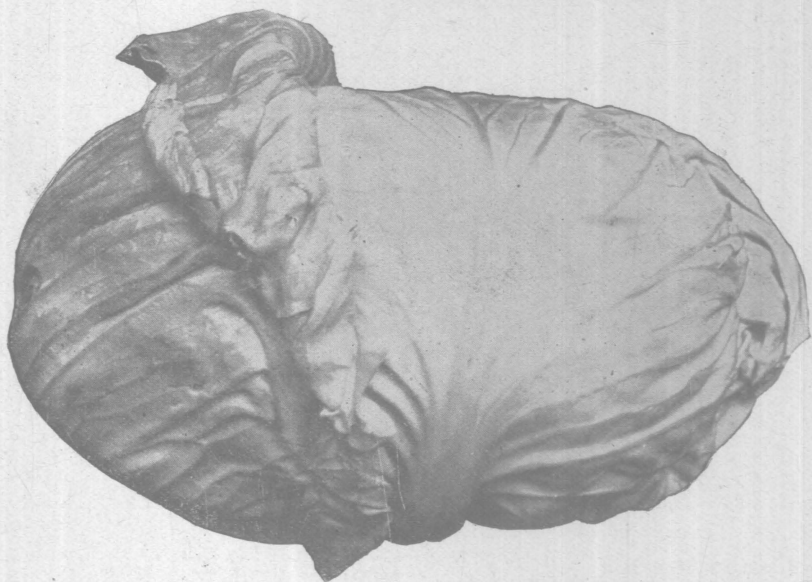


Fig. 3. Allhead Early. (Burpee).

Early Baseball (Burpee). Perhaps the earliest of all varieties tested. A small, round head that matured very evenly. The heads averaged lowest in weight but all were of good shape and solid.

First Early (Burpee). A fine, flat-headed early variety, maturing the bulk of crop at second cutting.

Mainstay-Early (Burpee). A very distinct type of cabbage. The color of foliage is a light blue-green. It cannot be classed, judging from one season's trial, as an extra early. A flat head inclined to globular. The remarkable solidity of heads places this cabbage in a class by itself. Being very slow to burst it will make a valuable cabbage for the home garden. This variety is certain of popularity.

Copenhagen Market (Burpee). A remarkable new cabbage. Matured the bulk of its crop with the extra earlies (See Chart No. 3) yet averaged the heaviest weight per head in the test. Its appearance in the field is splendid.

being very uniform in type and of a neat, attractive habit of growth. The heads are round and very solid and good flavored. This cabbage has already been widely planted and has given uniform satisfaction. It ought to be tested by all market gardeners who are looking for improved early types.

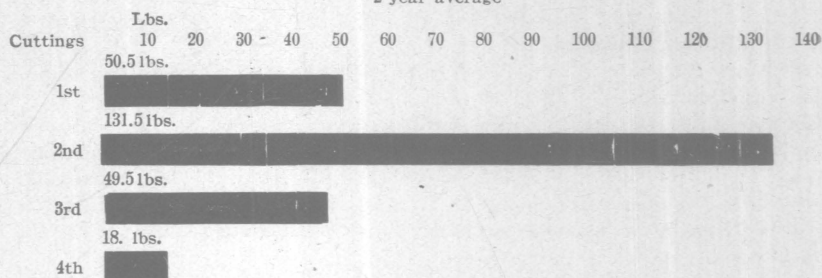


Fig. 4. Copenhagen Market. (Burpee).

CHART III.

COPENHAGEN MARKET (Burpee)

2 year average



Early Spring (Dreer). An early cabbage of the flat type. Uniform in shape. Heads averaged well in weight for an early. The strain, however, shows the undesirable tendency to mature bulk of crop late.

First Crop (Dreer). Claimed to have received "Award of Merit" in England, which goes to prove that foreign introductions are not certain of success here. The heads matured early (such as did form heads) but were very small. Over half the plants formed no heads, being simply a rosette of leaves. Practically worthless in our trials.

Early Spring (Henderson). An early, flat-headed variety. The heads of this strain averaged much smaller than those of the cabbage of the same name listed by Dreer. To account for such a variation of a variety under the same name is not an easy matter.

New Early Market (Henderson). One of the recent round-headed introductions and of considerable promise. The heads averaged heavy in weight and the bulk of the crop was fairly early. The general appearance of the plants was good, but the strain showed a tendency to produce large, loose-leaved heads.

Lightning Express (Isbell). A promising variety of the Jersey Wakefield type. While not justifying in our trials the catalog description as the "earliest cabbage in cultivation" it is a good variety, but perhaps averages no better than the various true extra early Wakefields.

Early No. 138 (Holmes). A round-headed early that matures its crop in good season. A solid head of fine appearance.

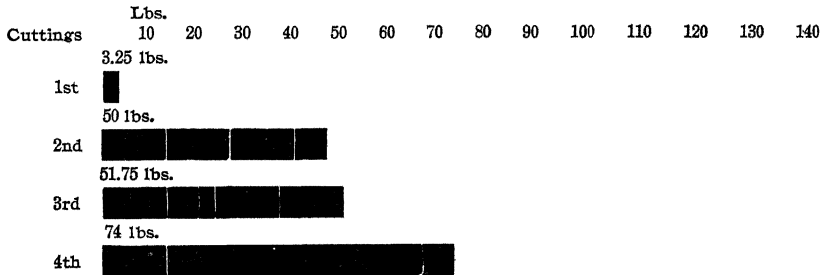
Earliest Pointed (Landreth). Evidently an extra early strain of the Jersey Wakefield. Like the true extra early Wakefield it matures the bulk of the crop quickly and makes room for second crops.

Round Earliest of all (Landreth). Not of the extreme early class, but a good, early, round head of medium size. A large percentage of the heads were of globe shape, but the strain shows a tendency toward flat heads. Bulk of crop matured after second cutting. (See Chart IV.)

CHART IV.

EARLIEST OF ALL (Landreth)

2 year average



Very Early Flat (Landreth). One of the extreme early cabbages. Over half of the heads were ready at the first cutting. A flat, solid head but inclined to be globular.

Earliest (Stokes). An attractive early variety of the Early Jersey Wakefield type. A good, vigorous growth with solid, conical heads.

Quick Cash (Stokes). A flat early. Has a tendency to produce many large, loose, worthless heads. Not disease resisting.

Pilot (Tait). Another of the "Etamps" type. A market accustomed to the solid heads of the Wakefield will hardly take kindly to the soft heads of this class. The inability of this cabbage to withstand disease is very marked.

EARLY CABBAGE TESTS 1911-12

MISCELLANEOUS TYPES

WEIGHTS

Year test	Name	Cuttings				Total lbs.	No. heads	Av. wt. lbs.
		1st	2nd	3rd	4th			
1912	Early of Earlies (Boddington)	43.	48.	22.	...	113.	48	2.3
1912	Race Horse (Buckbee)	44.	27.	29.	29.	129	45	2.9
1911	All Head Early (Burpee)	11.5	108.	82.	142.	343.5	62	5.5
1912	All Head Early (Burpee)	19.	40.	65.	105.	229.	53	4.3
1911	Early Baseball (Burpee) .....	...	99.	5.	3.	107.	52	2.0
1912	Early Baseball (Burpee)	65.5	27.	...	...	92.5	51	1.8
1911	Ey. Copenhagen Market (Burpee)	42.	171.	60.	36.	309.	54	5.7
1912	Ey. Copenhagen Market (Burpee)	59.	92.	39.	...	189.	45	4.2
1911	First Early (Burpee) .....	...	122.	70.	35.	227.	55	4.1
1912	First Early (Burpee)	53.	82.	42.	24.	192.	53	3.6
1912	Mainstay Early (Burpee)	5.	4.5	43.	83.	135.5	48	2.8
1911	Early Spring (Dreer) .....	...	36.	70.	97.	203.	53	3.8
1912	Early Spring (Dreer)	2.5	33.	36.	134.	205.5	40	5.1
1911	First Crop (Dreer) .....	...	38.	...	31.	69.	53	1.3
1912	First Crop (Dreer)	22.	4.	12.	...	38.	26	1.5
1912	Early Spring (Henderson)	4.	11.	54.	73.	142.	50	2.8
1912	New Early Market (Henderson)	17.5	48.	64.	53.	182.5	45	4.1
1911	Early No 138 (Holmes) .....	...	87.	104.	70.	261.	53	4.9
1912	Lightning Express (Isbell)	30*	21.	74.	34.	159	48	3.3
1911	Earliest of All (Landreth) .....	...	92.	41.5	83.	216.5	61	3.5
1912	Earliest of All (Landreth)	6.5	8.	62.	65	141.5	49	2.9
1912	Earliest Pointed (Landreth)	38.5	20.	43.	...	106.5	46	2.3
1912	Early Flat (Landreth)	49.	18.	24.	...	91.	40	2.3
1912	Earliest (Stokes)	30.5	36	69.	45.	180.5	56	3.2
1911	Quick Cash (Stokes) .....	..	71.	39.	47.	201.	55	3.6
1912	Quick Cash (Stokes)	10.5	16.	50.	53.	129.5	53	3.9
1912	Extra Early Pilot (Tait)	49.5	32.	37.	...	118.5	51	2.3